Figure 96. General view of site XMH-01174, facing east

Because none of the shovel tests were positive, no 1m x 1m test units were excavated at site XMH-01174. Soil thickness varied from 0-55cm across the site. Wind erosion appears to have impacted approximately 90 percent of the site where there is no soil deposition at all. However some areas of the site do have deposition down to an average depth of 30cm. Soil in these areas consists of loosely compacted dark brown, organically rich loess to an average depth of 12cm. Below this organic horizon the soil consists of moderately compacted yellow brown loess with a low density of gravels and cobbles. Glacial till is encountered below this loess deposit and consists of yellow brown sandy loess with a high density of gravels and cobbles.

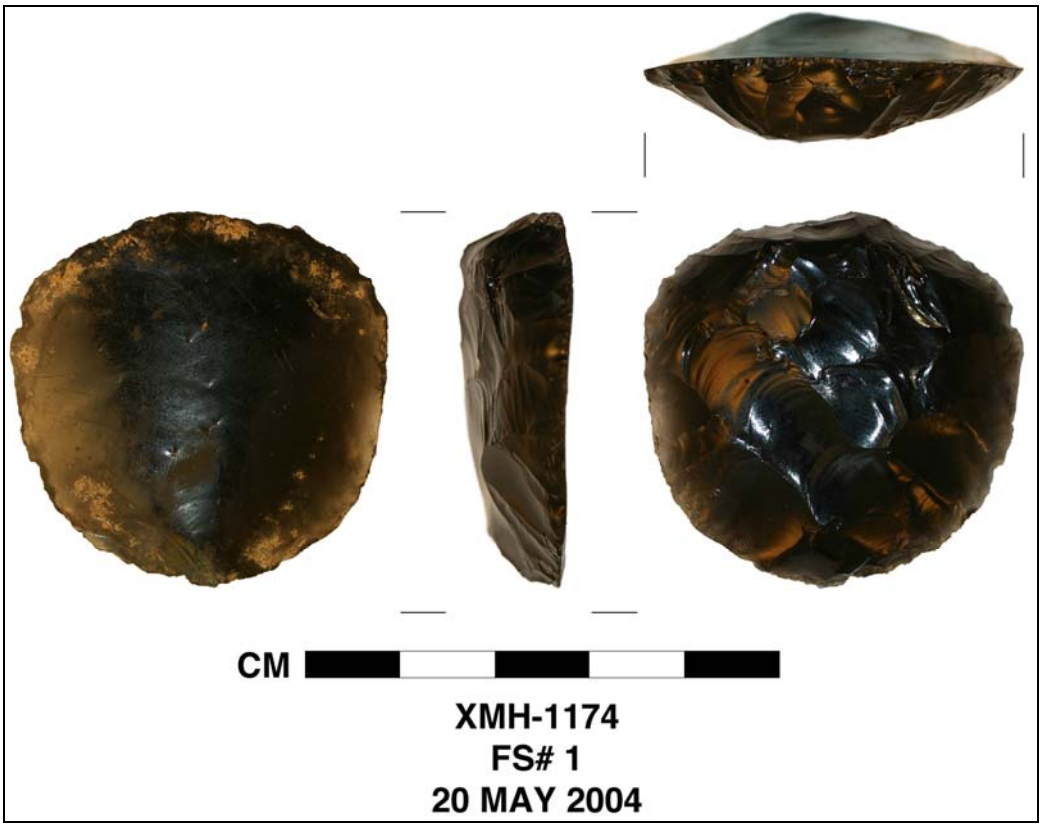

Figure 97. Obsidian scraper from site XMH-01174

Findings

Pedestrian survey and 45 shovel tests produced a total of only one obsidian artifact. This finding suggests that XMH-01174 is an isolated find. However, with the presence of obsidian, a non-locally occurring material type, XMH-01174 is in a position to contribute to our knowledge of prehistoric land use patterns and potentially contribute to a broader regional context. Site XMH-01174 is an intact archaeological site with integrity. The site is eligible for inclusion in the National Register of Historic Places under criterion D, for its potential to yield information important in understanding the prehistory of the region.

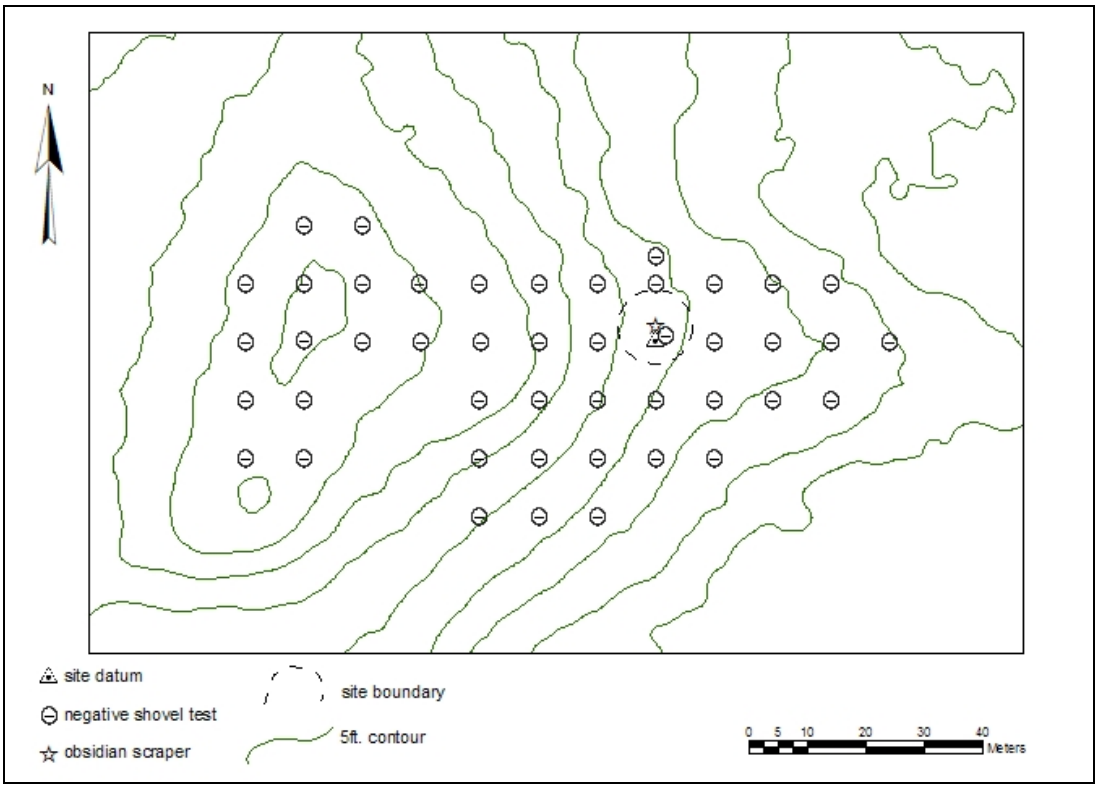

Figure 98. Site map of XMH-01174

XMH-01193
Latitude:
Longitude:
Determination: Not Eligible

Site XMH-01193 is located on a north-south trending ridge to the west of Windy Ridge. The nearest water sources are two lakes situated approximately 100m to the east. The view shed at the site is roughly 360^{o} —it is interrupted somewhat to the northeast by Windy Ridge, but the top portion of Donnelly Dome can still be seen. Additional landmarks visible from the site are the Alaska Range to the west and southwest and the Delta River to the west.

Site XMH-01193 was identified during the 2005 field season and consists of one artifact. One dark gray chert tertiary flake was found on the surface during the Phase I survey. No additional artifacts were found during the later Phase II evaluation of the site. No artifacts were collected.

Shovel tests were systematically placed throughout the site area at intervals of 10m. A total of 26 shovel tests were excavated. Five of these shovel tests were located in areas of one hundred percent surface visibility, none of which contained any cultural material. Additionally, an intensive examination of the surface area was performed. The depth of shovel tests varied, but all were excavated to glacial till. Based on the results of the survey and testing, the site area is estimated at approximately 5m x 5m.

Figure 99. General view of site XMH-01193, facing northwest (flag marks location of artifact)

Because none of the shovel tests were positive, no 1m x 1m test units were excavated at site XMH-01193. Shovel tests at the southern end of the landform were deeper than those at the northern end and depths ranged from 15-66cm. The top layer consists of an organic mat, ranging in color from dark gray to very dark brown, with average thickness falling from 5-10cm. Between this mat and till are layers consisting of loess in various shades of brown. The layers tended toward a darker brown nearer the surface which gave way to a lighter or yellowish brown closer to till. Glacial till consists of brown to yellowish brown loess with a very high density of gravels and cobbles.

Findings

Pedestrian survey and 26 shovel tests produced a total of only one artifact. This finding suggests that XMH-01193 is an isolated find. The paucity of cultural material indicates that XMH-01193 does not contain additional information that is important to our understanding of the prehistory or history of the region and is not eligible for inclusion in the National Register of Historic Places.

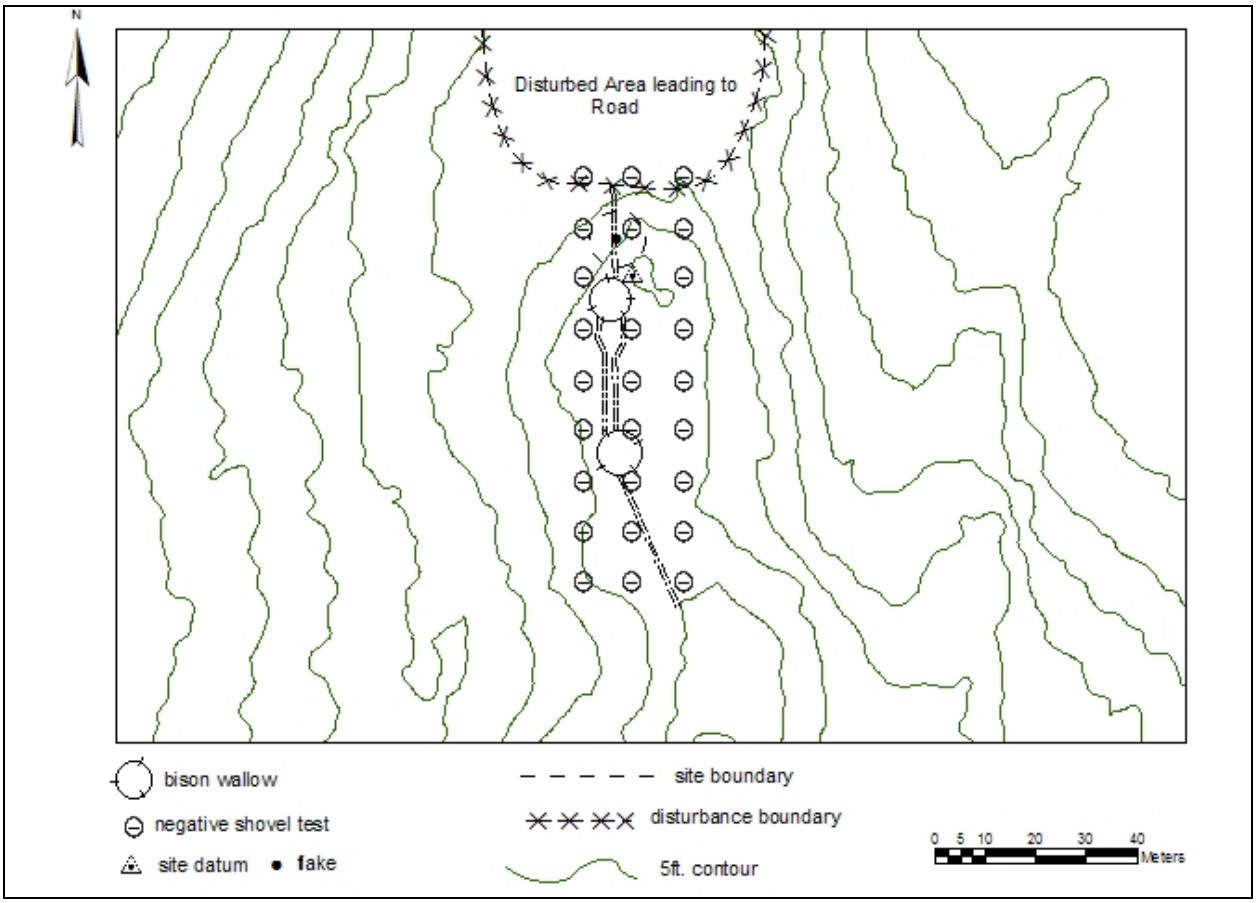

Figure 100. Site map of XMH-01193

XMH-01202
Latitude:
Longitude:
Determination: Eligible

Site XMH-01202 is located on a bench next to a high, prominent knoll. The nearest water to the site is a small, unnamed pond located 200m to the northwest. South Twin Lake is located just beyond the pond and is visible from the site. The view shed at the site is 360°. Visible landmarks include: the Alaska Range to the southwest, the Delta River to the west, Donnelly Dome to the south and Windy Ridge to the south-southeast. Surface visibility at the site is estimated at 50 percent.

Site XMH-01202 consists entirely of one dark gray chert biface and two gray chert tertiary flakes found during the 2005 Phase I survey. The chert biface is 8.5cm long, 4cm wide and weighs 49g. No further artifacts were found during later Phase II investigations. All three of the artifacts were collected. Shovel tests were systematically placed throughout the site area at 10m intervals. A total of 27 shovel tests were excavated. None of the 27 shovel tests contained any cultural materials. The depth of shovel tests varied, but all were excavated to glacial till.

Based on the results of survey and testing, the site area is estimated to be approximately 5m x 5m.

Figure 101. General view of site XMH-01202, facing east

Because none of the shovel tests were positive, no 1m x 1m test units were excavated at the site. Soil thickness varied 0-34cm across the site. Much of the site area has sustained considerable wind erosion and therefore contains little or no soil deposition. Generally, soil across the site averaged a depth of about 7cm. This soil is characterized by loosely compacted, dark brown, organically rich loess to an average depth of 2cm. Below this organic horizon, the soil consists of moderately compacted brown loess. Glacial till is encountered below this loess deposit and consists of yellow brown sandy loess with a high density of gravels and cobbles. The area of the site along the 10N (10m north of the datum) line showed deeper soil deposits, averaging 25cm. The soil in this area consists of loosely compacted, dark brown, organically rich loess to an average depth of 5cm. Below this organic horizon, the soil consists of moderately compacted, brown loess. Glacial till is encountered below this loess deposit and consists of yellow brown sandy loess with a high density of gravels and cobbles.

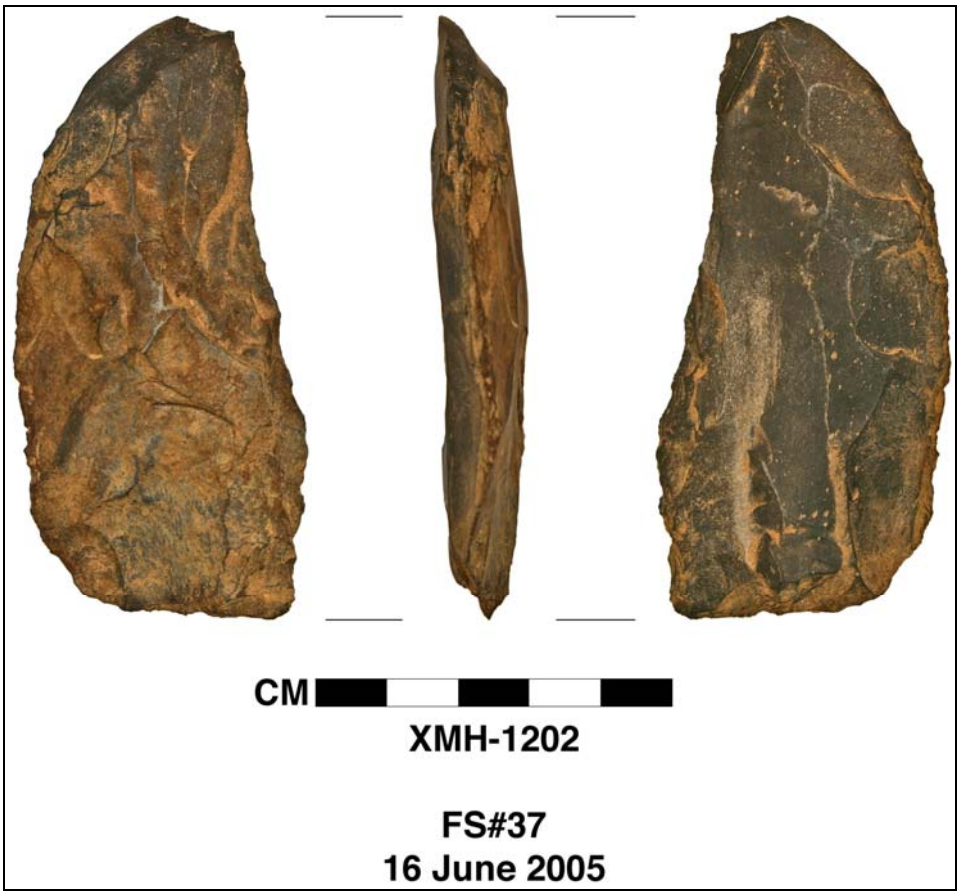

Figure 102. Biface from XMH-01202

Findings

Pedestrian survey and 27 shovel tests produced a total of only three surface artifacts. The paucity of cultural material indicates that XMH-01202 does not contain additional information that is important to our understanding of the prehistory or history of the region and is not eligible for inclusion in the National Register of Historic Places.

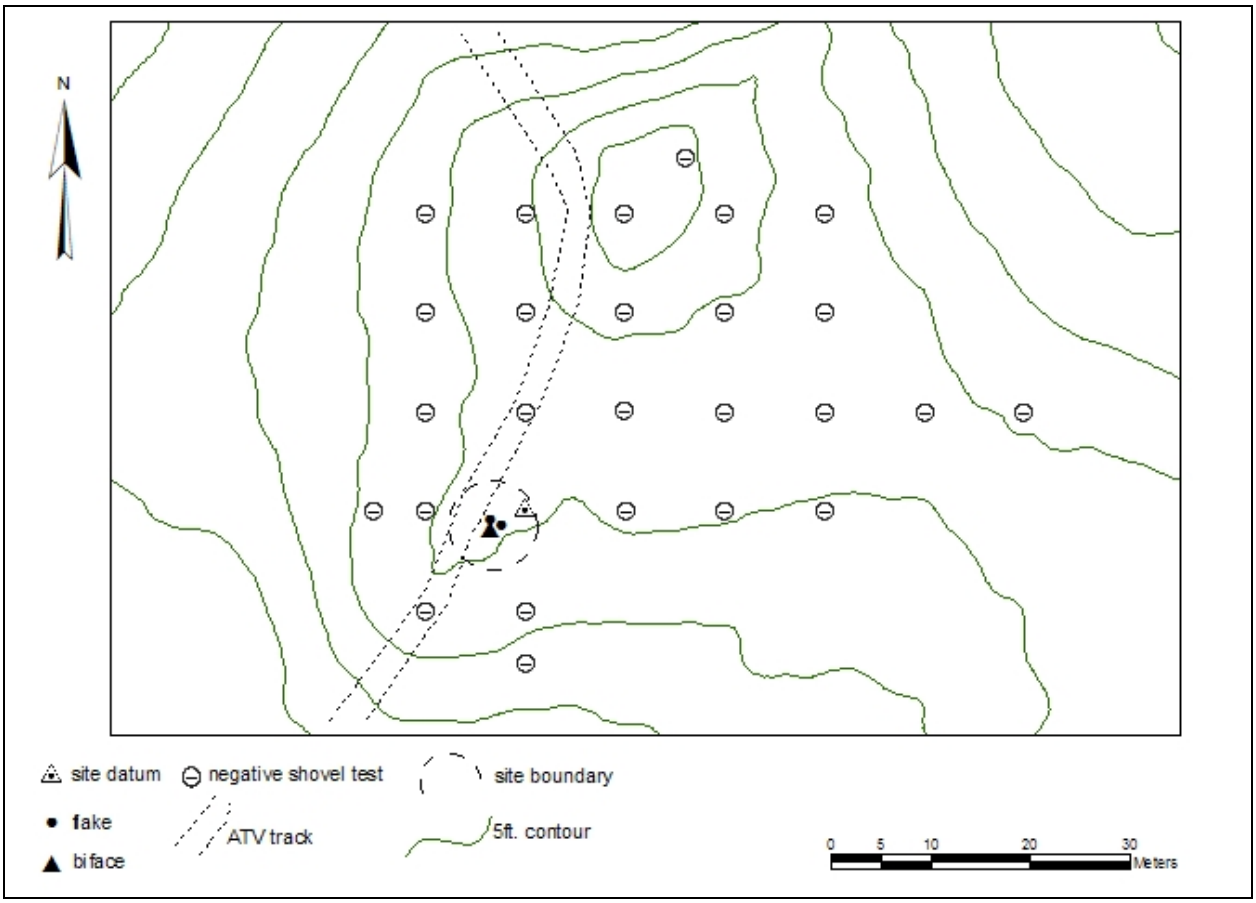

Figure 103. Site map of XMH-01202

XMH-01208
Latitude:
Longitude:
Determination: Eligible

Site XMH-01208 is located on a narrow, east-west trending moraine. The nearest water source is Beaver Lodge Lake, which is located 50m to the south. The view shed at the site is 90^{o} degrees to the southwest. Visible landmarks include the Alaska Range to the southwest and Windy Ridge to the east. Surface visibility at the site is estimated at 15-20 percent.

Site XMH-01208 consists of 18 artifacts. One flake was found on the surface during the 2005 Phase I survey and 17 additional artifacts were found subsurface in either shovel tests or test units during later testing of the site. Subsurface artifacts include seven flakes from one shovel test and four flake tool fragments and six flakes from the test unit. The four flake tool fragments are made of an unidentified material and refit into one tool that has been unifacially retouched that is 4.2cm long, 2.2cm wide, and weighs 4g. All 17 subsurface artifacts were collected. The one surface flake was not collected. Chert, basalt, quartz and an unidentified material were present among the debitage.

Shovel tests were systematically placed throughout the site area at intervals of 10m. Five shovel tests were dug at 5m intervals to avoid excavating on the slopes of the landform. A total of 26 shovel tests were excavated at the site. The depths of shovel tests varied, but all were excavated to glacial till. One shovel test (located 0m north and 10m east of the datum) was positive, yielding seven flakes from a depth of 4-10cm below the surface. Based on the results of survey and testing, the site boundaries are estimated to be 22m x 11m.

Figure 104. General view of site XMH-01208, facing east

One 1m x 1m test unit was excavated at XMH-01208. The unit was placed on the top of the landform, near the positive shovel test located 10m east of the site datum. The unit was excavated in 10cm levels until glacial till was reached throughout the entire unit floor. The test unit contained seven artifacts recovered from levels one and two. All seven of the artifacts were found 0-20cm below the unit datum. No subsurface features were identified at the site. Soil thickness varied from 0-44cm across the site. The south facing portions of the landform have minimal soil deposition at an average of 5cm. Soil in these areas consists of loosely compacted, brown, organically rich loess to an average depth of 5cm. Below this organic horizon, glacial till is encountered; till consists of loosely compacted yellow brown sandy loess with a high density of gravels and cobbles. The top and northern slope of the landform is better protected from the effects of wind erosion and therefore shows deeper soil deposits, averaging 30cm. Soil in these areas consists of loosely compacted, dark grayish brown, organically rich loess to an average depth of 10cm. Below this organic horizon, the soil consists of moderately compacted red, brown, yellow, and gray mottled loess with a low density of gravels and cobbles. Glacial till is encountered below this loess deposit and consists of loosely compacted yellow brown sandy loess with a high density of gravels and cobbles.

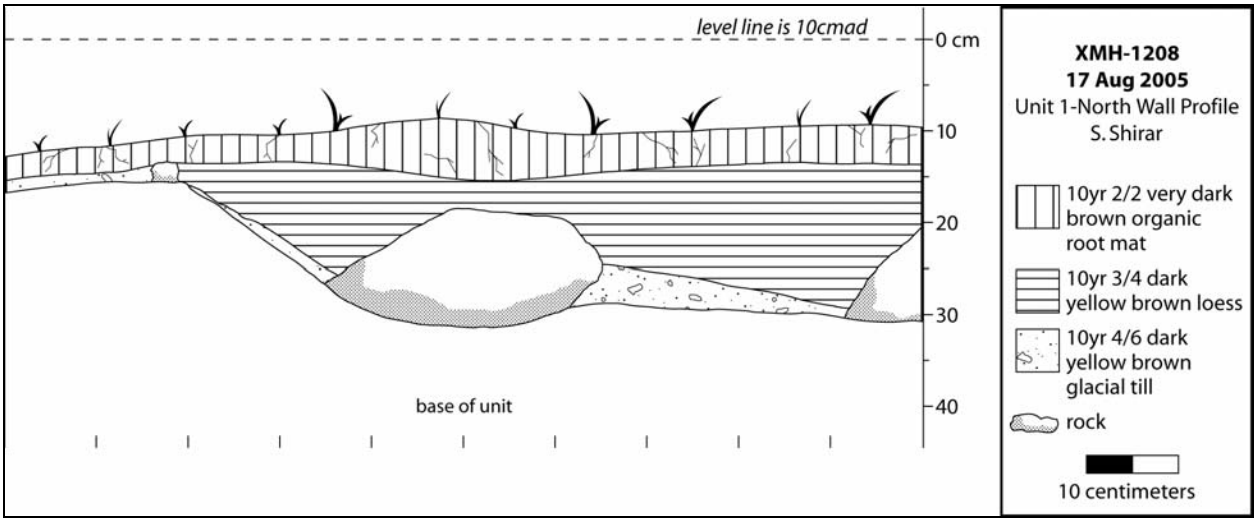

Figure 105. Soil Profile from XMH-01208

Findings

A total of 18 artifacts were recovered from XMH-01208. One was recovered from the surface and 17 were recovered from below the surface. The materials at the site include chert, basalt, quartz and an unidentified material. Based on the results of survey and testing the site area is estimated at approximately 22m x 11m.

Site XMH-01208 is a small lithic site with both surface and buried components. With buried cultural material, XMH-01208 is in an excellent position to contribute to our knowledge of prehistoric land use patterns. *In situ* artifacts and soil stratigraphy indicate datable material and diagnostic artifacts may be present and could be used to date human use of the site, potentially contributing to a broader regional context. Site XMH-01208 is an intact archaeological site with integrity. The site is eligible for inclusion in the National Register of Historic Places under criterion D for its potential to yield information important in understanding the prehistory of the region.

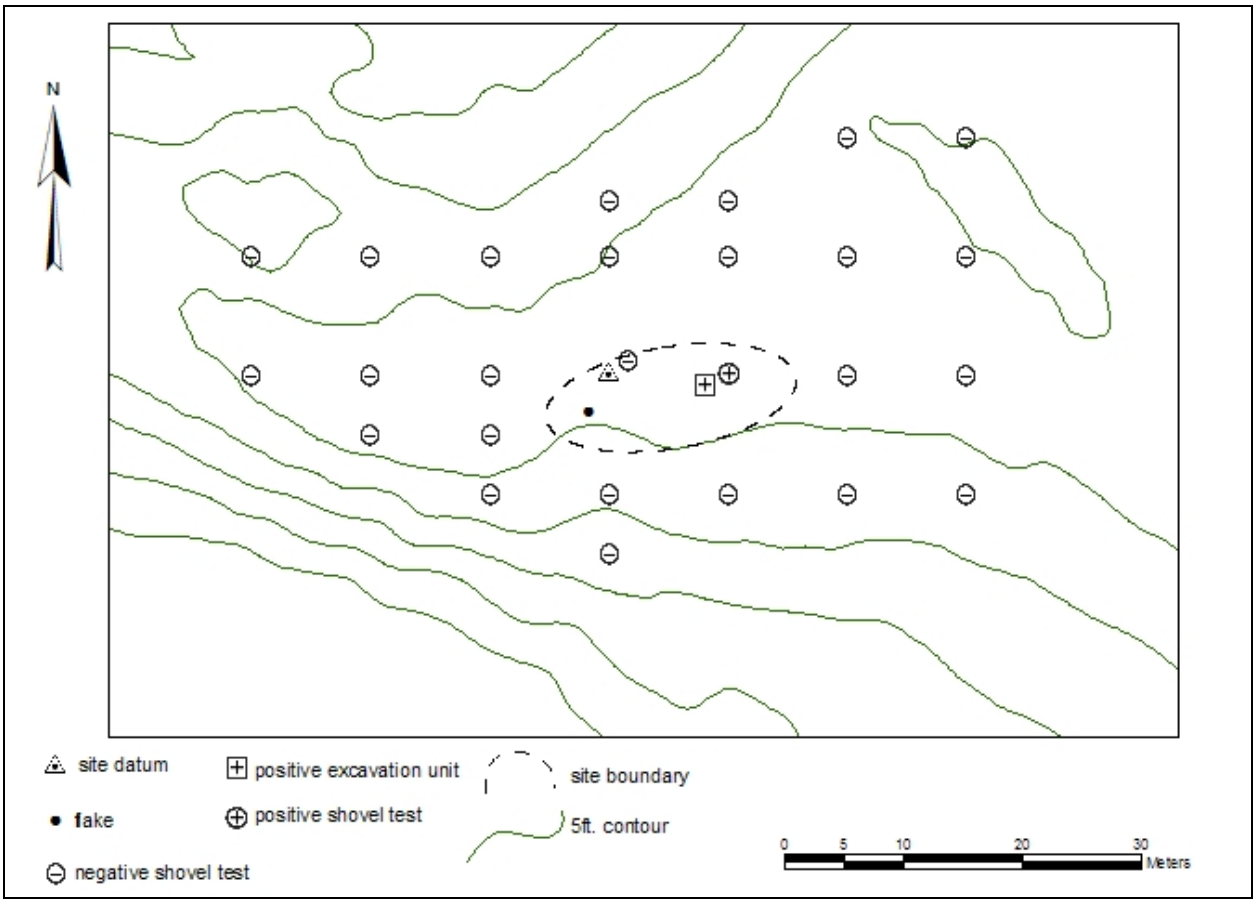

Figure 106. Site map of XMH-01208

XMH-01213
Latitude:
Longitude:
Determination: Eligible

Site XMH-01213 is located on a bench extending off of a higher ridge located to the south. The nearest water source is South Twin Lake, located 100m to the north. The view shed at the site is limited due to vegetation and higher surrounding ridges. Windy Ridge, to the east, is the only visible landmark. Surface visibility at the site is estimated to be 25 percent.

Site XMH-01213 consists of two artifacts. One chert or argillite flake and one chert core were found subsurface. The flake was found in a shovel test during the Phase I survey of the area. The core was found in a test unit during the later Phase II evaluation of the site. Both of the artifacts were collected.

Shovel tests were systematically placed throughout the site area at intervals of 10m. Six shovel tests were placed at 5m intervals at the site. A total of 27 shovel tests were excavated during the Phase II evaluation of the site. The depths of the shovel tests varied, but all were excavated to glacial till. Outside of the original Phase I shovel test, none of the additional 27 that were excavated contained any cultural materials. Based on the results of survey and testing, the site boundaries are estimated to be 12m x 10m.

Figure 107. General view of site XMH-01213, facing east

One 1m x 1m test unit was excavated at XMH-01213. The test unit was placed 1.5m south and 1.5m west of the site datum, near the original positive shovel test excavated during Phase I survey. The test unit was excavated in 10cm levels until glacial till was reached throughout the entire unit floor. The test unit contained one chert core found in level one at 9cm below the unit datum. No subsurface features were identified at the site. Soil thickness varied from 2-32cm across the site. The northern edge and northern slope of the site are exposed and have sustained a considerable amount of wind erosion, making soil deposition thin. Soil in these areas averages 5cm and consists of loosely compacted, dark brown, organically rich loess to an average depth of 5cm. Glacial till is encountered below this organic horizon and consists of loosely compacted yellow brown sandy loess with a high density of gravels and cobbles. The southern portions of the site are protected from the effects of wind erosion by mature trees and thick vegetation, making soil deposits deeper. Soil in these areas averages 20cm and consists of loosely compacted, dark brown/black, organically rich loess to an average depth of 10cm. Below this organic horizon, the soil consists of moderately compacted gray brown loess with a low density of gravels and cobbles. Glacial till is encountered below this loess deposit and consists of loosely compacted gray brown sandy loess with a high density of gravels and cobbles.

Findings

A total of two artifacts were recovered from XMH-01213. All artifacts were recovered from below the surface. Based on the results of survey and testing, the site area is estimated at approximately 12m x 10m.

Site XMH-01213 is a small buried site with late stage lithic debitage, and the site could potentially contain more cultural material. With such buried cultural material XMH-01213 is in an excellent position to contribute to our knowledge of prehistoric land use patterns. *In situ* artifacts and soil stratigraphy indicate datable material and diagnostic artifacts may be present

and could be used to date human use of the site, potentially contributing to a broader regional context. Site XMH-01213 is an intact archaeological site with integrity. The site is eligible for inclusion in the National Register of Historic Places under criterion D, for its potential to yield information important in understanding the prehistory of the region.

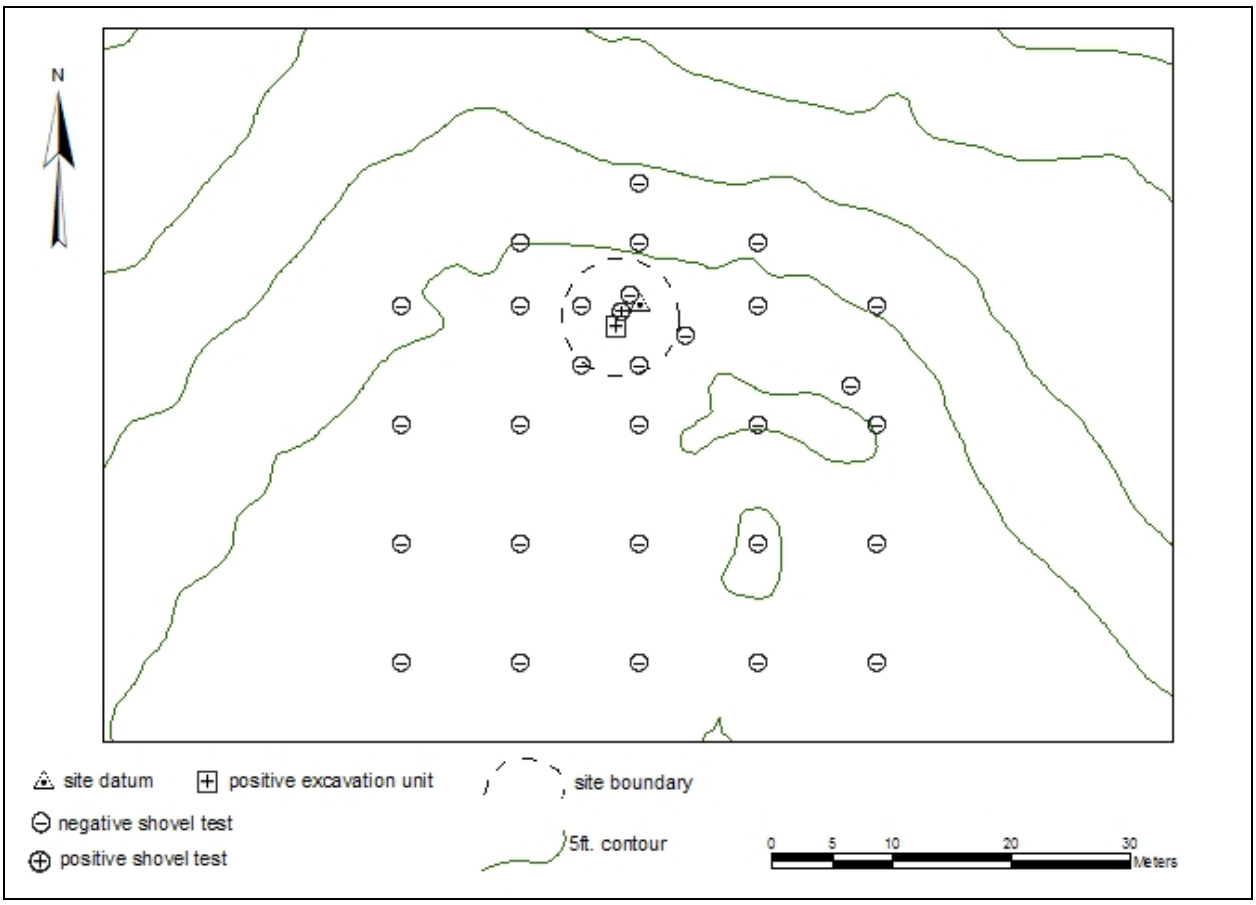

Figure 108. Site map of XMH-01213

XMH-01214
Latitude:
Longitude:
Determination: Not Eligible

Site XMH-01214 is located on a southwest-northeast trending moraine. The nearest water source is a small, unnamed lake located 75m to the east. The view shed is limited due to vegetation and higher surrounding ridges. Visible landmarks include Donnelly Dome to the south, the Alaska Range to the southwest and Windy Ridge to the east. Surface visibility is estimated to be 50 percent.

Site XMH-01214 consists of three basalt flakes found on the surface. One basalt tertiary flake was found during Phase I survey, and two additional basalt tertiary flakes were found during Phase II evaluation. Both the survey and the evaluation were conducted during the 2005 field season. None of the surface artifacts were collected. Shovel tests were systematically placed throughout the site area at intervals of 10m. A total of 30 shovel tests were excavated at the

site (13 during Phase I and 17 during Phase II). None of the 30 test pits excavated at the site contained cultural materials. The depth of the shovel tests varied, but all were excavated to glacial till. Based on the results of the survey and testing, the site area is estimated to be approximately 10m x 13m.

Figure 109. General view of site XMH-01214, facing south

Because none of the shovel test pits excavated contained any cultural material, no test units were excavated at the site. Soil thickness varied 2-33cm across the site. A portion of the south/southwest facing edge of the landform has suffered from extensive wind erosion and showed no deposition at all. The center and northern portions of the landform showed some soil deposition, and in this area the soil averaged approximately 10cm in depth. Soil in this area of the landform consists of loosely compacted, organically rich, dark brown loess to an average depth of 4cm. Below this organic horizon, the soil consists of moderately compacted, light brown sandy loess to an average depth of 10cm. Glacial till is encountered below this sandy loess deposit and consists of yellow brown sandy loess with an extremely high density of gravels and cobbles.

Findings

Pedestrian survey and 30 shovel tests produced a total of only three surface artifacts. The paucity of cultural material indicates that XMH-01214 does not contain additional information that is important to our understanding of the prehistory or history of the region and is not eligible for inclusion in the National Register of Historic Places.

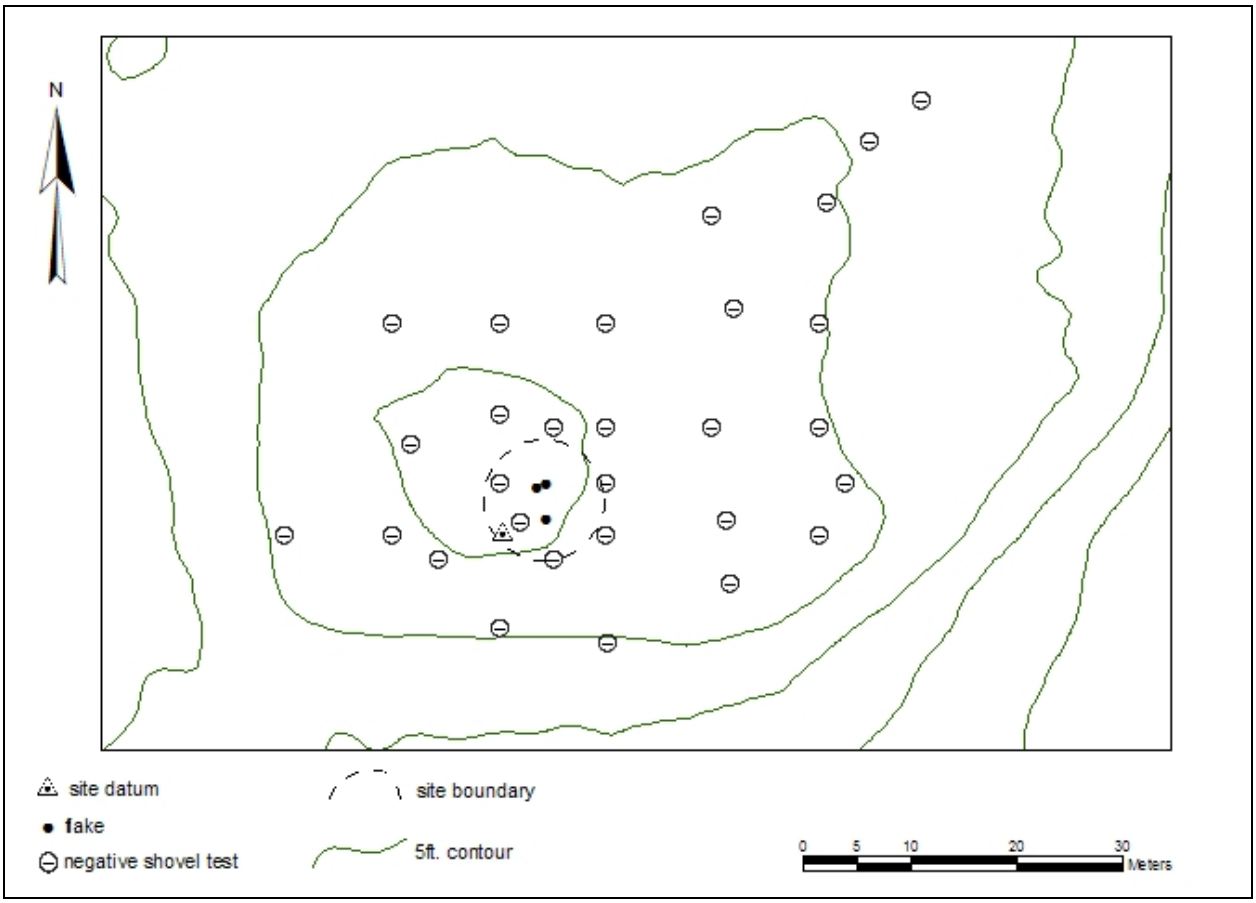

Figure 110. Site map of XMH-01214

XMH-01215
Latitude:
Longitude:
Determination: Eligible

Site XMH-01215 is located on a prominent knoll. The nearest water source is a small, unnamed pond located 50m to the southeast. The view shed at the site is a full 360°. Visible landmarks include Windy Ridge to the east, the tip of Donnelly Dome to the south, the Alaska Range to the southwest, the Delta River to the west and Twin Lakes to the northwest. Surface visibility at the site is estimated to be 75 percent.

Site XMH-01215 consists of 21 flakes and one flake tool. Six flakes were found on the surface and an additional 15 flakes were found subsurface in either shovel tests or test units. One rhyolite flake tool was found on the surface and was collected. The flake tool is 3.2cm long, 2.6cm wide and weighs 7g. Chert, basalt, rhyolite and quartz were present among the debitage. Shovel tests were systematically placed throughout the site area at intervals of 10m. Two shovel tests were placed at 5m intervals near the surface concentration of artifacts. A total of 23 shovel tests were excavated. The depth of shovel tests varied, but all were excavated to glacial till. One shovel test was positive, yielding one artifact from a depth of 0-10cmbs.

Figure 111. General view of site XMH-01215, facing northeast

One 1m x 1m test unit was excavated at site XMH-01215. The unit was placed on the slope of the landform, near the positive shovel test, northeast of the site datum. The unit was excavated in 10cm levels until glacial till was reached throughout the entire unit floor. The test unit contained 14 artifacts recovered from levels 1, 2 and 3. All 14 of the artifacts were found 0-10cm below the surface but, due to the slope of the unit, they were scattered throughout the 3 levels. No subsurface features were identified at the site.

Soil thickness varied 0-34cm across the site. The site has sustained a considerable amount of wind erosion and most of the site showed little soil deposition, averaging only 10cm in most areas. The soil in these areas consists of loosely compacted, dark brown, organically rich loess to an average depth of 5cm. Below this organic horizon, the soil consists of moderately compacted red brown loess with a low density of gravels and cobbles. Glacial till is encountered below this loess deposit and consists of loosely compacted yellow brown sandy loess with a high density of gravels and cobbles. Along the far eastern portion of the site grid, 2 shovel tests showed some deeper loess deposits, averaging 30cm. The soil in this area consists of loosely compacted, dark brown, organically rich loess to an average depth of 5cm. Below this organic horizon, the soil consists of moderately compacted yellow brown loess with a low density of gravels and cobbles. Glacial till is encountered below this loess deposit and consists of yellow brown sandy loess with a high density of gravels and cobbles. Also, several areas across the site are barren and have been eroded down to a point where glacial till is visible at the surface.

Findings

A total of 22 artifacts were recovered from XMH-01215. Seven were recorded from the surface and 15 were recovered from below the surface. The materials at the site include chert, basalt, rhyolite and quartz. Based on the results of survey and testing the site area is estimated at approximately 13m x 10m.

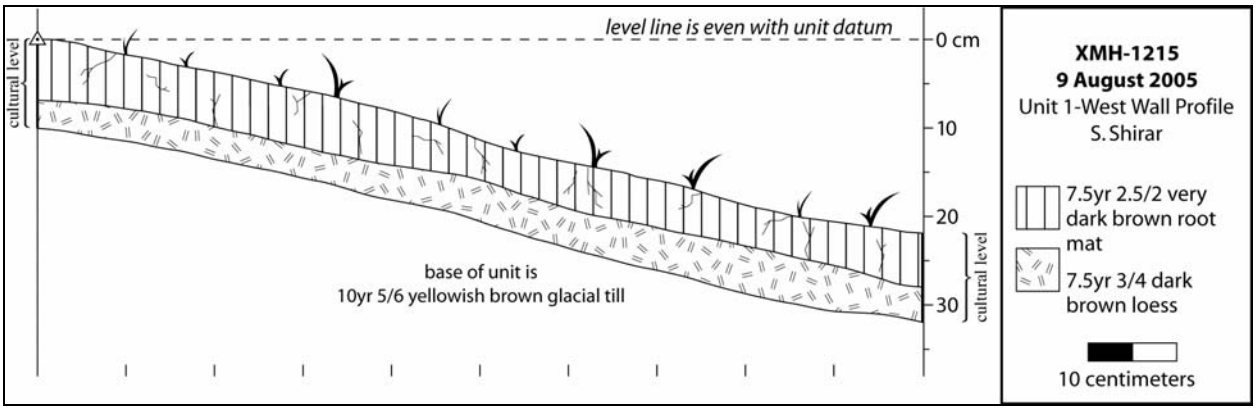

Figure 112. Soil profile of test unit from XMH-01215

Site XMH-01215 is a small lithic site with both surface and buried components. With buried cultural material, XMH-01215 is in an excellent position to contribute to our knowledge of prehistoric land use patterns. *In situ* artifacts and soil stratigraphy indicate datable material and diagnostic artifacts may be present and could be used to date human use of the site, potentially contributing to a broader regional context. Site XMH-01215 is an intact archaeological site with integrity. The site is eligible for inclusion in the National Register of Historic Places under criterion D for its potential to yield information important in understanding the prehistory of the region.

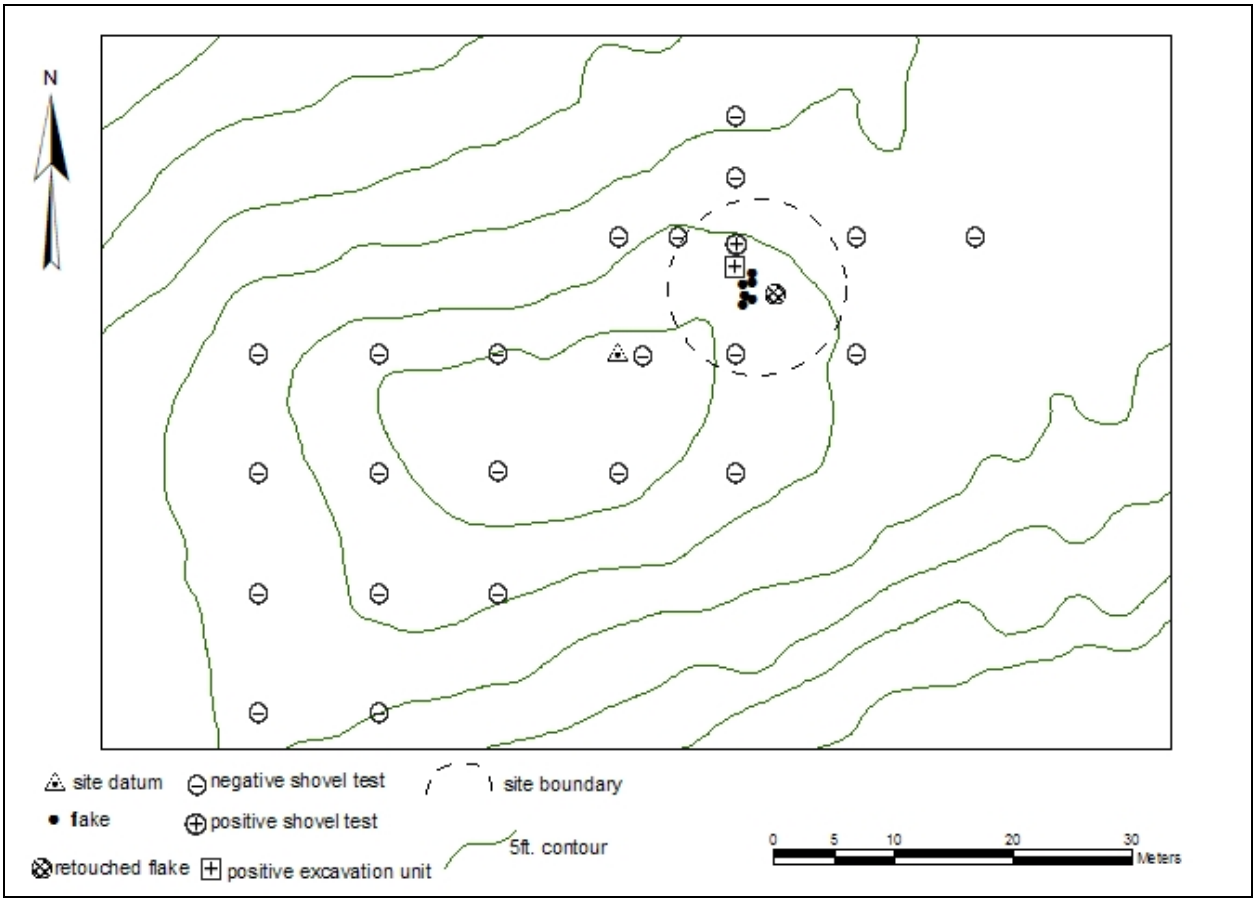

Figure 113. Site map of XMH-01215

XMH-01270
Latitude:
Longitude:
Determination: Not Eligible

Site XMH-01270 is located on the northern end of a southwest/northeast trending moraine. Donnelly Dome can be seen to the southeast, and the Alaska Range to the southwest. There are approximately a dozen lakes to the north; the closest is approximately 300m away. The view shed at the site is a full 360°. The Delta River is located to the west, and the Granite Mountains to the east. Surface visibility at the site is 100 percent; the site is windswept barrens devoid of soil deposition.

Site XMH-01270 was identified during the 2005 field season and consists of one artifact. One tertiary chert flake was discovered on the surface during the Phase I survey. No additional artifacts were found during the later Phase II evaluation of the site. No artifacts were collected.

For this evaluation, no shovel tests were excavated due to the lack of soil deposition on the moraine. Instead, the surface of the landform was intensively examined. No cultural materials were found during the course of this examination. It appears that the flake found during Phase I is an isolated artifact.

Figure 114. General view of site XMH-01270, facing north

Findings
Pedestrian survey and Phase II evaluation produced only one surface artifact. The paucity of cultural material indicates that XMH-01270 does not contain additional information that is important to our understanding of the prehistory or history of the region and is not eligible for inclusion in the National Register of Historic Places.

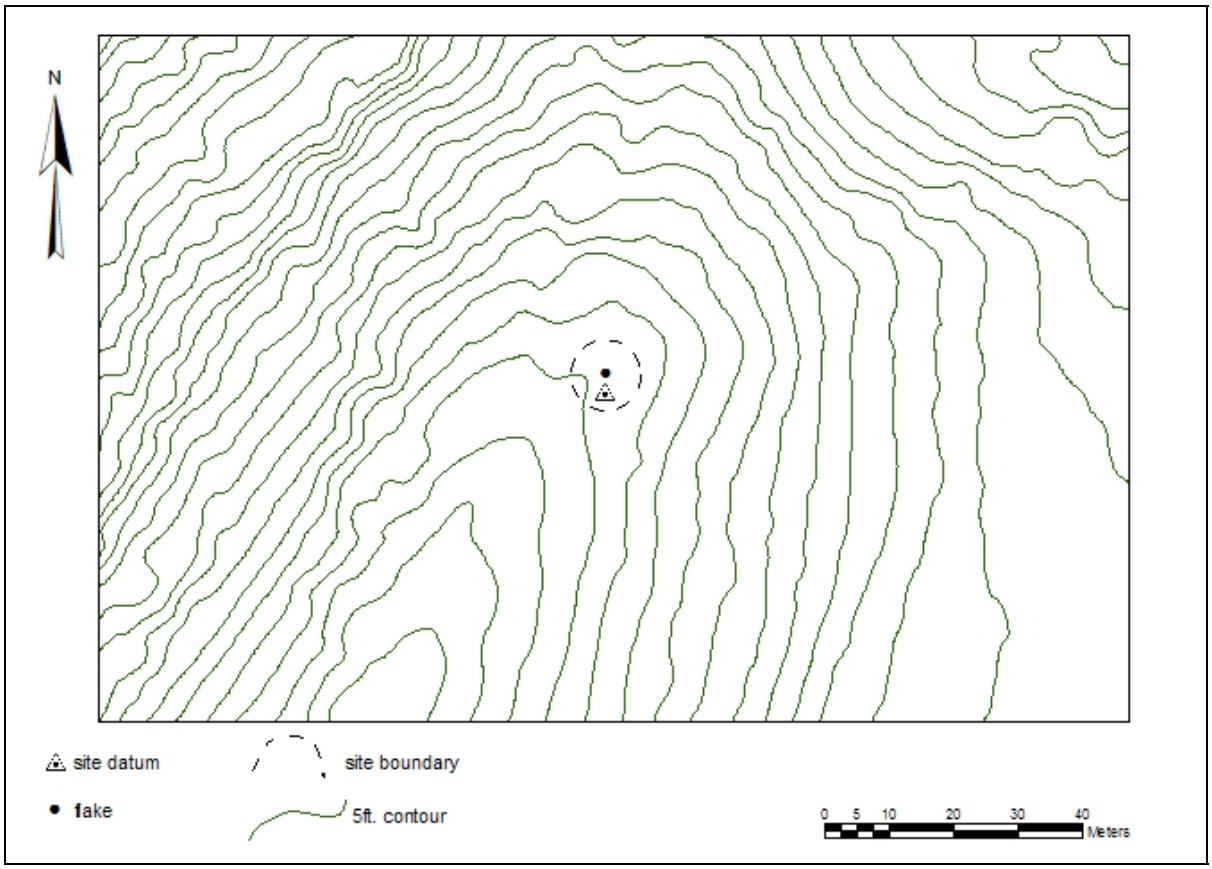

Figure 115. Site map of XMH-01270

XMH-01271
Latitude:
Longitude:
Determination: Not Eligible

Site XMH-01271 is located on a southwest/northeast trending moraine. Donnelly Dome can be seen to the east, and the Alaska Range to the south and southwest. The view shed at the site is a full 360°. The Delta River is located to the west, and the Granite Mountains to the east. Surface visibility at the site is 100 percent; the site is windswept barrens devoid of soil deposition.

Site XMH-01270 was identified during the 2005 field season and consists of one artifact. One tertiary chert flake was discovered on the surface during the Phase I survey. No additional artifacts were found during the later Phase II evaluation of the site. No artifacts were collected.

For this evaluation, no shovel tests were excavated due to the lack of soil deposition on the moraine. Instead, the surface of the landform was intensively examined. No cultural materials were found during the course of this examination. It appears that the flake found during Phase I is an isolated artifact.

Findings
Pedestrian survey and Phase II evaluation produced only one surface artifact. The paucity of cultural material indicates that XMH-01271 does not contain additional information that is

important to our understanding of the prehistory or history of the region and is not eligible for inclusion in the National Register of Historic Places.

Figure 116. General view of site XMH-01271, facing north

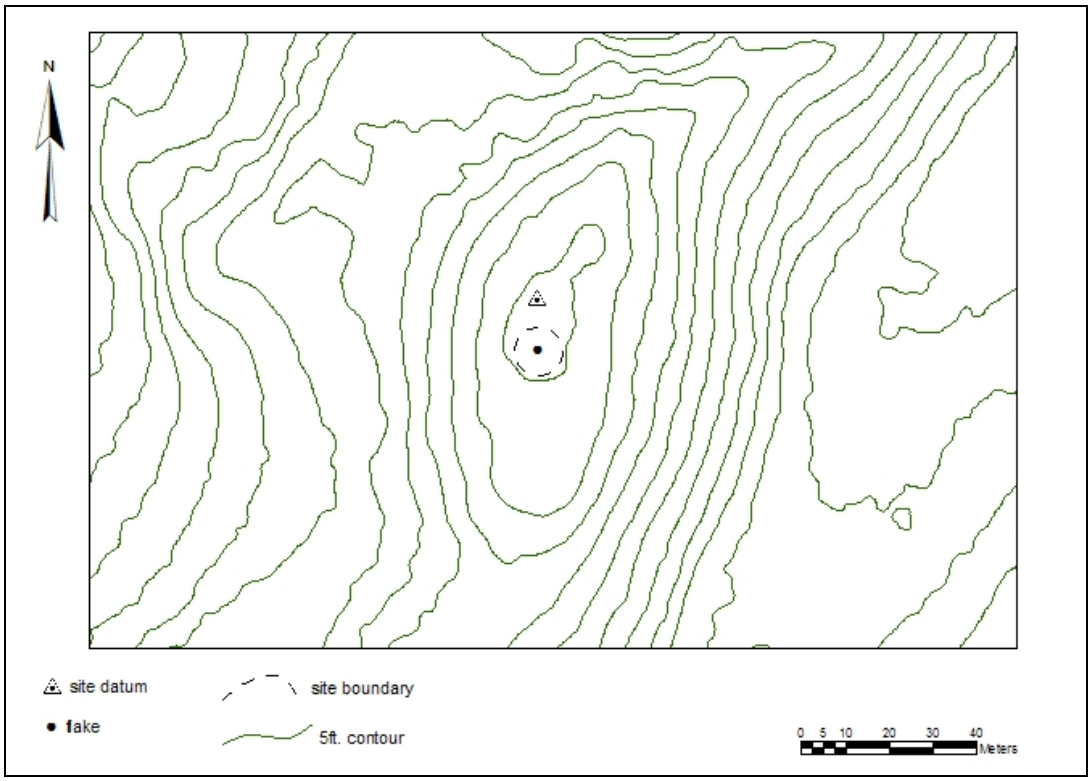

Figure 117. Site map of XMH-01271

5.2 Upgrade Vehicle Access at Bolio Lake

Bolio Lake is stocked with fish and is a popular recreation area for the military, civilian and local residents. The lake is also used during the winter months for various tests by the Cold Regions Test Center (CRTC), which has their main facility nearby. Currently, there is a trail that loops from the Wahlgren Highway around the north end of the lake to access a picnic area and canoe launch on the west shore. Because the lake has receded in recent years, a network of vehicle tracks and ruts is being created between the trail and the current lake shore. A small inlet stream (less than 1m wide) is also being eroded and disturbed by this uncontrolled vehicle access. Repair of the trail and access control in this shore area is needed to prevent further damage and erosion. The total project area is approximately 5.1 acres.

The proposed project involves upgrading the existing lake access trail by placing six inches of gravel over geo-textile material, blocking one of two access points off the Wahlgren Highway and providing barriers and signs to direct traffic onto the trail. A gate will be installed to allow CRTC to access the lake from the north shore during winter. Rehabilitation of the tracked and rutted area will be accomplished by ripping the soil that has been compacted and letting the area re-seed naturally. This is primarily a wetland area and commercially available grass seed mixes are inappropriate. Willow fascines may be installed during spring if needed. The stream crossing will be hardened with a standard low water crossing design incorporating larger-sized rock, shallow approaches and very little fine material.

5.2.1 Bolio Lake Results/Summary

In July 2005 the Bolio Lake access upgrade and repair project location was investigated by a crew of four archaeologists employed by the CEMML. No historic properties were identified by visual inspection or shovel testing within the area of potential effect. As a result, USAG-AK has determined that there are no historic properties located within the Bolio Lake upgrades and repairs project area. All other previously recorded archaeological sites or historic properties at the Donnelly Training Area fall outside of the proposed project area. Based on the information presented above, USAG-AK has determined that no historic properties will be affected by the proposed project.

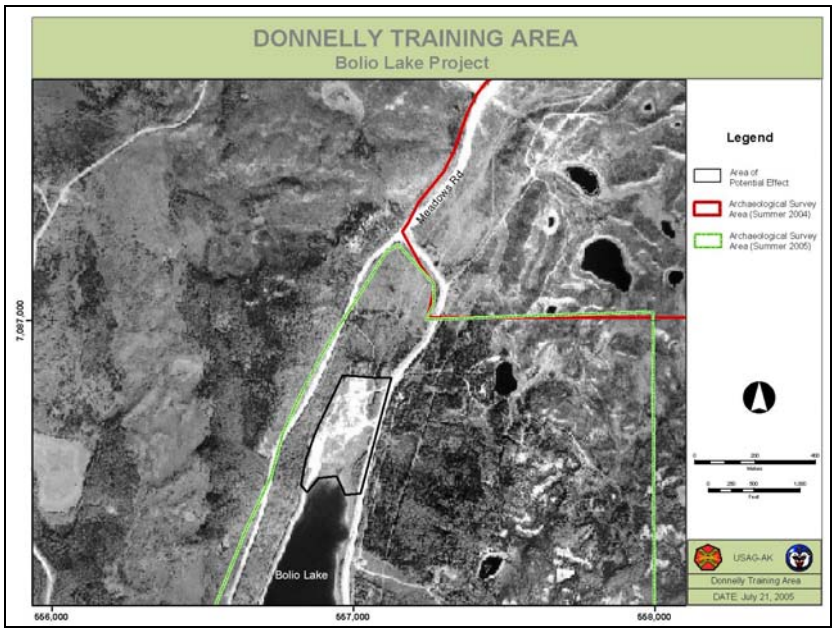

Figure 118. Project area for Bolio Lake Upgrades and Repairs

5.3 Designation of Three Engineer Digging Sites

USAG-AK has proposed to designate three areas within DTA East as engineer digging sites, or "sandboxes." These areas would be set aside for repeated digging operations and would be allowed to remain disturbed. The purpose of these sandbox sites is to provide areas where engineer companies can operate heavy equipment such as bulldozers, graders and backhoes. These companies need to gain experience constructing trench systems, tank traps, hull-down positions and other large-scale digging projects. Designation of dedicated digging areas will decrease the number of areas that are disturbed for this type of training.

Two of the sandbox sites will be designated at existing engineer training locations at Firing Point (FP) Audrey and FP Mark. These two locations will continue to be used within their current boundaries and will not be expanded. FP Audrey and Mark are appropriate locations because engineer companies are often associated with the artillery units that currently use the Firing Points. A third sandbox location is required, however, because FP Audrey and Mark are not of sufficient size to construct a tank trap and FP Audrey is within the Collective Training Range, which creates conflicts in scheduling.

The third designated sandbox site will be located in Training Area 49, in the vicinity of Observation Point (OP) 3 and the Main Supply Route. This area was formerly dominated by black spruce and aspen prior to the 1999 Donnelly Flats Fire. The area is currently vegetated by aspen, willows, shrubs and grasses. The terrain is very level and flat, which will minimize erosion potential.

All three of the proposed sandbox locations are in areas that have been surveyed for cultural resources. No known sites are located within the boundaries of any of the three proposed training locations. Companies training within the FP Audrey and Mark areas will be limited to the existing disturbed areas. Once finalized the third area, in the vicinity of OP3 will be cleared to the size indicated on Figure 5 (approximately 4 acres). Once cleared, no digging, trenching or other ground disturbing activities will be permitted outside of the existing disturbed area at any of the three sandbox locations.

5.3.1 Three Engineer Digging Sites Section 106 (NHPA) Inventory

The areas encompassing the proposed sandbox locations at FP Audrey and FP Mark were surveyed for cultural resources prior to 2005. The area encompassing the proposed sandbox location in OP3 was surveyed in 2005. This inventory work was completed by crews of archaeologists employed by the Center for Environmental Management of Military Lands (CEMML, Colorado State University). CEMML archaeologists William Hedman (2002) and Aaron Robertson (2003-2005) and Julie Raymond-Yakoubian (2005) were the supervising archaeologists for these inventories.

Pedestrian survey and subsurface testing did not identify any cultural resources in any of the three proposed project areas. There are no known sites located within 500 meters (m) of the proposed FP Audrey sandbox location. There are four sites located approximately 500m from the proposed FP Mark sandbox location. There are no known sites located within 500m of the proposed OP3 sandbox location.

5.3.2 Three Engineer Digging Sites Cultural Resources

There are no known archaeological sites located within any of the three areas of potential effect. Sites XMH-00935, XMH-00936, XMH-00937 and XMH-00982 are near, but outside of, the area of potential effect for the proposed FP Mark site. None of these four sites will be affected by the proposed project, but each site is briefly described below. Therefore, no historic properties will be affected by the proposed activities.

XMH-00935
Site XMH-00935 is located on a long, low ridge that runs north-south. Sites XMH-00936, XMH-00937 and XMH-00982 are also on the same ridge. The nearest water source is Mark Lake, which is located 550m to the north. The view shed at the site is approximately 270º, with vegetation blocking views to the north. The Alaska Range is visible to the southwest, Donnelly Dome to the south and Windy Ridge to the southeast. Less than five percent of the surface is visible.

Site XMH-00935 consists of one brown-gray chert microblade found during phase I investigations in 2002 (Hedman et al. 2003). Shovel tests were systematically placed throughout the site area at intervals of 10m during the 2005 evaluation. A total of 24 new shovel tests were excavated. The depths of the shovel tests varied, but all were excavated to glacial till. None of the 24 shovel tests were positive and no new artifacts were found during the 2005 evaluation. Based on the results of the survey and testing, the site area is estimated at approximately 5m x 5m.

Findings
Site XMH-00935 was evaluated during the 2005 field season and was determined not eligible for listing in the NRHP (See Section 5.1 this report). Pedestrian survey and 24 shovel tests produced a total of only one artifact. This finding suggests that XMH-00935 is an isolated find.

XMH-00936
Site XMH-00936 is located on a long, low, north-south trending ridge. Sites XMH-00935, XMH-00937 and XMH-00982 are located further south on the same ridge. The northern portion of the site is elevated approximately 2m higher than the southern portion. Mark Lake is the nearest water source, located 450m to the north. The view shed is a full 360º, with the Delta River and Alaska Range visible to the west, Donnelly Dome to the south and the Granite Mountains to the east. Surface visibility is approximately 15 percent.

Site XMH-00936 consists of three artifacts. Three tertiary, dark gray chert flakes were found on the surface during a 2002 Phase I survey (Hedman et al. 2003). Shovel tests were systematically placed throughout the site area at intervals of 10m during the 2005 evaluation. A total of 32 new shovel tests were excavated. The depths of the shovel tests varied, but all were excavated to glacial till. None of the 32 shovel tests were positive and no new artifacts were found during the 2005 evaluation. Based on the results of the survey and testing, the site area is estimated at approximately 40m x 30m.

Findings
Site XMH-00936 was evaluated during the 2005 field season and was determined not eligible for listing in the NRHP (See this Section 5.1 report). Pedestrian survey, 32 shovel tests and two 1m x1m test excavation units produced a total of only three surface artifacts.

XMH-00937
Site XMH-00937 is found on a long, low, north-south trending ridge. Sites XMH-00935, XMH-00936, and XMH-00982 are also located on this ridge. Mark Lake is located 600m to the north and is the nearest water source. The view shed at the site is approximately 270º with views to the north blocked by vegetation. The Alaska Range is visible to the west, Donnelly Dome to the south and the Granite Mountains to the east. Surface visibility is less than 15 percent.

Site XMH-00937 consists of five chert flakes found in a buffalo wallow during 2002 Phase I investigations (Hedman et al. 2003). Only one flake was relocated in 2005. Shovel tests were systematically placed throughout the site area at intervals of 10m during the 2005 evaluation. A total of 39 new shovel tests were excavated. None of the 39 shovel tests were positive and no new artifacts were found during the 2005 evaluation. The depths of the shovel tests varied, but all were excavated to glacial till. Based on the results of the survey and testing, the site area is estimated at approximately 10m x 10m.

Findings
Site XMH-00937 was evaluated during the 2005 field season and was determined not eligible for listing in the NRHP (See Section 5.1 this report). Pedestrian survey and 39 shovel tests produced a total of five surface artifacts.

XMH-00982
Site XMH-00982 is located on a long, low, north-south trending ridge. Sites XMH-00935, XMH-00936, and XMH-00937 are located on this same ridge. The view shed at the site is approximately 270º with views to the northeast blocked by vegetation. The Alaska Range is visible to the west, Donnelly Dome to the south and the Granite Mountains to the east. Surface visibility is estimated to be less than one percent.

Site XMH-00982 consists of a quartz biface found in a shovel test pit during 2002 Phase I investigations. This was one of four test pits, and the only positive one, and was excavated along the southern end of the landform in 2002 (Hedman et al. 2003). The biface, which is 15cm long, was collected. Shovel tests were systematically placed throughout the site area at intervals of 10m and 5m during the 2005 evaluation. A total of 36 new shovel tests were excavated. The depths of the shovel tests varied, but all were excavated to glacial till. None of the 36 shovel tests excavated during the evaluation were positive and no new artifacts were found. Based on the results of the survey and testing, the site area is estimated at approximately 5m x 5m.

Findings
Site XMH-00982 was evaluated during the 2005 field season and was determined not eligible for listing in the NRHP (See Section 5.1 this report). Pedestrian survey, 36 shovel tests and two 1m x 1m excavation units produced a total of only one artifact. This finding suggests that XMH-00982 is an isolated find.

5.3.3 Three Engineer Digging Sites Results/Summary
Pedestrian survey and subsurface testing of the three proposed areas of potential effect have not identified any National Register eligible cultural resources. All other previously-recorded historic properties in the Donnelly Training Area also fall outside the project areas. Based on the above information, USAG-AK has determined that no historic properties will be affected by the proposed activities and seeks your concurrence on this finding.

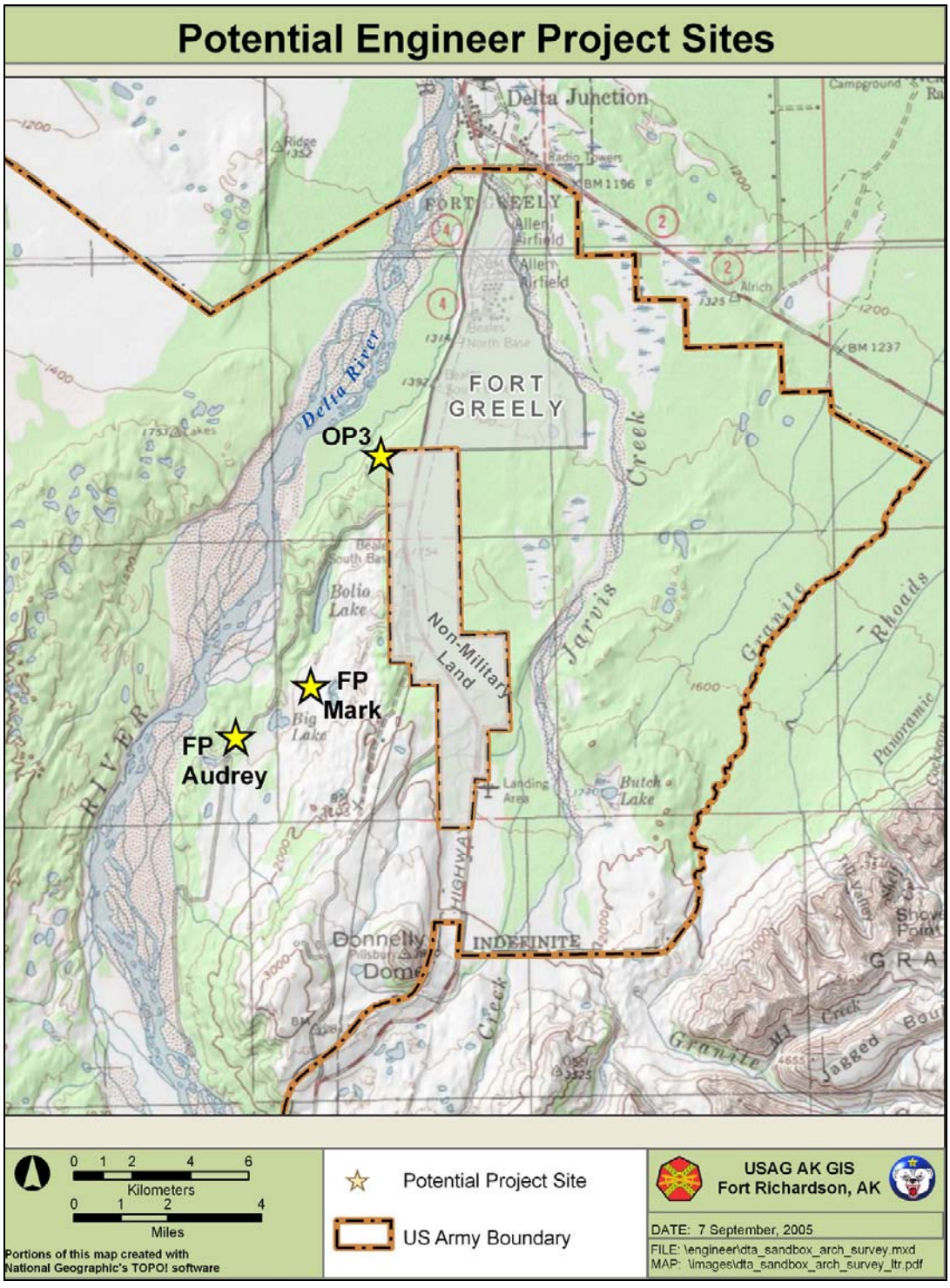

Figure 119. Map showing the three proposed engineer digging areas or “sandboxes”

Map removed

Figure 120. Map showing location of FP Mark APE and archaeological sites

5.4 Battalion Forward Operating Base Upgrades

USAG-AK has proposed to upgrade the Battalion Forward Operating Base (FOB) in the Donnelly Training Area East. The proposed project will improve approximately two acres of unimproved trails with a network of hardened trails and tent pads. These improvements will be accessed via the existing FOB or from Observation Point Road. The purpose of this project is to improve access and control erosion by confining bivouac activities to hardened surfaces through grading and the installation of geotextile and fill material.

5.4.1 Battalion FOB Section 106 (NHPA) Inventory

In August of 2005 the proposed FOB upgrades were pedestrian surveyed by a crew of five archaeologists employed by the CEMML. Julie Raymond-Yakoubian was the supervising archaeologist for this work.

The proposed project is located in a flat area between the Richardson Highway to the east and Observation Point Road to the west. The vegetation in the project area is composed of small diameter aspen and scattered black spruce with an under story of berry bushes, grasses and mosses. Portions of the project area had been previously disturbed by vegetation clearing, trail use and other troop training activities. Pedestrian survey and subsurface testing did not identify any cultural resources in the proposed FOB upgrade project area.

5.4.2 Battalion FOB Cultural Resources

There are two known sites located within 500m of the proposed FOB upgrade. Sites XMH-00273 and XMH-00287 have been determined not eligible for listing in the National Register of Historic Places based on re-investigations of the sites in 2004.

XMH-00273

Site XMH-00273 is located on a glacial outwash terrace that over looks the Delta River, approximately 900m west of the Richardson Highway. The site consists of two retouched flakes, several flakes of different material types and a larger cobble core on the surface (Holmes 1979: 84-85). This site was previously determined not eligible for listing in the National Register of Historic Places. The location on the original AHRS card is off by several hundred meters and the correct UTM coordinates for the site are:

This site is located approximately 200m southwest of the project area.

XMH-00287

Site XMH-00278 is located on a glacial outwash terrace that over looks the Delta River, approximately 600m west of the Richardson Highway. The site consists of a retouched flake and several flakes of different material types on the surface of a heavily disturbed area (roads, power lines, gravel pits and clearing) (Holmes 1979:86). The location on the original AHRS card is off by several hundred meters and the correct UTM coordinates for the site are:

This site is located approximately 150m northwest of the project area.

Results/Summary

Pedestrian survey and subsurface testing of the proposed project area did not identify any National Register eligible cultural resources. There are two sites located within the vicinity of the proposed project. USAG-AK has determined that sites XMH-00273 and XMH-00287 are not eligible for the National Register and seeks your concurrence on these findings. Both of these sites are located outside of the project area. All other previously-recorded historic properties in the Donnelly Training Area also fall outside the project area. Based on the above information, USAG-AK has determined that no historic properties will be affected by the proposed activities and seeks your concurrence with this finding.

5.5 Timber Sale on Donnelly Training Area

USAG-AK has proposed to sell approximately 10 acres of timber from the DTA East. This sale will occur during the winter of 2006, and the timber will likely be used as firewood because of its small diameter size. Usable dead spruce will be cut from an area approximately 130 acres in size (the actual total area cut will be approximately 10 acres). Trees will be cut using a chainsaw and will be dragged with a skidder. The wood will then be loaded onto pickup trucks and hauled from the sale area.

5.5.1 Timber Sale Section 106 (NHPA) Inventory

In July 2005 USAG-AK cultural resources staff reviewed the proposed project and the existing literature on cultural resources within the DTA. A portion of the area encompassing the proposed timber sale was surveyed for cultural resources in August 2005. This inventory work was completed by a crew of five archaeologists employed by the CEMML. Julie Raymond-Yakoubian was the supervising archaeologist for this project.

5.5.2 Timber Sale Cultural Resources

There are two known sites located within 500 meters of the proposed timber sale area.

XMH-00296

Site XMH-00296 was identified in 1978 and consists of two chert flakes found on the surface (Holmes 1979). This site was revisited in 2005 and no new artifacts were located. Site XMH-00296 has not been evaluated for eligibility for listing in the National Register of Historic Places. This site is more than 100m north of Windy Ridge Road and is also approximately 100 feet higher in elevation than the roadbed.

This site falls outside of the area of potential effect for the proposed project and no further action is recommended at this time.

XMH-01221

Site XMH-01221 was identified during pedestrian survey in 2005. The site consists of several fragments of blue-green colored chert shatter and a large (approximately 7cm x 55cm) unifacially flaked chopping or scraping tool. The site is located on a small kame overlooking a pond to the north. The entire site area was burned in a forest fire several years ago and there are many downed trees. Site XMH-01221 has not been evaluated for eligibility for listing in the National Register of Historic Places.

This site falls outside of the area of potential effect for the proposed project and no further action is recommended at this time.

5.5.3 Timber Sale Results/Summary

Pedestrian survey and subsurface testing of a portion of the proposed project area did not identify any National Register eligible cultural resources. The remainder of the project area has a low potential for containing cultural resources. All other previously-recorded historic properties in the Donnelly Training Area also fall outside the project area. Based on the above information, USAG-AK has determined that no historic properties will be affected by the proposed activities and seeks your concurrence on this finding.

Map removed

Figure 121. Location of Timber Sale on DTA

5.6 Road Upgrade and Maintenance

USAG-AK has proposed to install signage and access controls and to perform regular maintenance on several gravel roads throughout the DTA. The roads proposed for regular maintenance and occasional installation of signage and access controls are Meadows Road, Windy Ridge Road and the Old Richardson Highway. Numerous training areas in DTA are accessed by these three gravel roads, including many of the Firing Points, Observation Points, the Cold Regions Test Center test facilities, the Bondsteel Combined Arms Live Fire Exercise Range, and the Collective Training Range. Regular maintenance is required of these roads to keep these training areas accessible. Additionally, with increased training and testing loads, added measures such as signs, flag poles and ditching are also required periodically.

USAG-AK is proposing to conduct regular road maintenance activities such as grading, pothole and side ditch repair, and snow plowing along the Meadows Road, Windy Ridge Road, Old Richardson Highway loop. USAG-AK is also proposing to occasionally install, as needed, additional signage and access control gates along this loop of roads. All work will be confined to within 50 feet of the existing road footprint.

5.6.1 Road Upgrade Section 106 (NHPA) Inventory

The entire length of the Meadows Road, Windy Ridge Road and Old Richardson Highway loop has been archaeologically surveyed at various times throughout the 2002, 2004 and 2005 field seasons (Figure X). At least 80m on both sides of each of these roads has been inventoried for historic properties, and for most of the loop, much more than 80m on either side has been investigated. This work was completed by crews of archaeologists employed by the CEMML. CEMML archaeologists Bill Hedman (2002), Aaron Robertson (2003 and 2005) and Julie Raymond-Yakoubian (2005) were the supervising archaeologists for these inventories.

5.6.2 Road Upgrade Cultural Resources

There are three known archaeological sites located in close proximity to the proposed project areas. Additionally, one site (XMH-00974) is located within the Windy Ridge Road area of potential effect. USAG-AK has determined that this site is not eligible for inclusion in the National Register of Historic Places (see this report). Sites XMH-00296, XMH-01206 and XMH-01222 are near, but outside of, the areas of potential effect for the Windy Ridge Road, Old Richardson Highway and Meadows Road projects, respectively. None of these three sites will be affected by the proposed maintenance activities or sign or access controls installation, and site XMH-00974 is not eligible for the National Register. Therefore, no historic properties will be affected by the proposed activities.

XMH-00296

Site XMH-00296 was identified in 1978 and consists of two chert flakes found on the surface (Holmes 1979). This site was revisited in 2005 and no new artifacts were located. This site is in the vicinity of the proposed activities along Meadows Road. Site XMH-00296 has not been evaluated for eligibility for listing in the National Register of Historic Places. This site is more than 100m north of Meadows Road and is also approximately 100 feet higher in elevation than the roadbed. This site falls outside of the area of potential effect for the project and no further action is recommended at this time.

XMH-00974

Site XMH-00974 is located on a heavily disturbed bench overlooking Lonestar Lake, which is 30m to the south. Windy Ridge Road runs across the middle of the site. The view shed at the site is estimated to be 90°. Visible landmarks include Donnelly Dome to the southeast, Windy

Ridge to the east and the Alaska Range to the southwest. Surface visibility at the site is estimated to be 25 percent.

This site was found during pedestrian survey in 2002. The site consists of three artifacts, all found on the surface. Artifacts include one chert flake, one quartz flake and a flake tool. The flake tool was collected from the site in 2002. No shovel tests were excavated at the site during this phase of investigations.

Findings
Site XMH-00974 was evaluated during the 2005 field season and was determined not eligible for listing in the NRHP (See Section 5.1 this report). Pedestrian survey and 31 shovel tests produced a total of only three surface artifacts. In addition, the site area is highly disturbed by the presence of Windy Ridge Road and associated pull off areas has compromised the integrity of the site.

XMH-01206
Site XMH-01206 is located on a north-south trending ridge, adjacent to Windy Ridge Road and west of the Trans-Alaska Pipeline. The view shed is restricted, due to high ridges obstructing the view in all directions, except to the northeast. The tops of Donnelly Dome and the Alaska Range are in view, and the extreme tops of the Granite Mountains can be seen. The nearest water source is a small unnamed pond, located approximately 50m to the west. Surface visibility at the site is estimated to be 75 percent. Alders, spruce, moss/lichen, labrador, and some cranberries have grown up on the site.

Site XMH-01206 was found through visual survey of the landform and consists of one piece of lithic debitage. This artifact is a tertiary chert flake and is gray with small tan inclusions. No shovel test pits were excavated at the site and no artifacts were collected from the site. This site is in the vicinity of the proposed activities along the Old Richardson Highway. Site XMH-01206 has not been evaluated for eligibility for listing in the National Register of Historic Places. This site is more than 50m west of the Old Richardson Highway and approximately 100 feet higher in elevation than the road. This site falls outside of the area of potential effect for the project.

XMH-01222
Site XMH-01222 is located on a small knoll and is surrounded by other knolls (both higher and lower in elevation). The area experienced forest fires in the recent past and vegetation in the area consists of mostly burned spruce trees with scattered birch and with a ground cover of mosses, lichens and grasses. The view shed is approximately 180° to the south, and Bolio Lake is visible in this direction.

This site consists of one large potential scraper, bifacially retouched along one edge recovered from a shovel test. This site has not been evaluated for eligibility for listing in the National Register of Historic Places. This site is in the vicinity of the proposed activities along Meadows Road, but is located more than 30m west of roadbed and is approximately 50 feet higher in elevation. This site falls outside of the area of potential effect for the project. No further action is recommended at this time.

5.6.3 Road Upgrade Results/Summary

Three known sites, XMH-00296, XMH-01206 and XMH-01222, are located in the vicinity of the proposed road maintenance and sign and access control installation activities, but are outside of the areas of potential effect. Site XMH-00974 is located within the area of potential effect for the proposed Windy Ridge Road activities. USAG-AK has determined that XMH-00974 is not eligible for the National Register. Therefore, no National Register eligible cultural resources have been identified within the areas of potential effect for the proposed activities. All other previously-recorded historic properties in the Donnelly Training Area also fall outside the project areas.

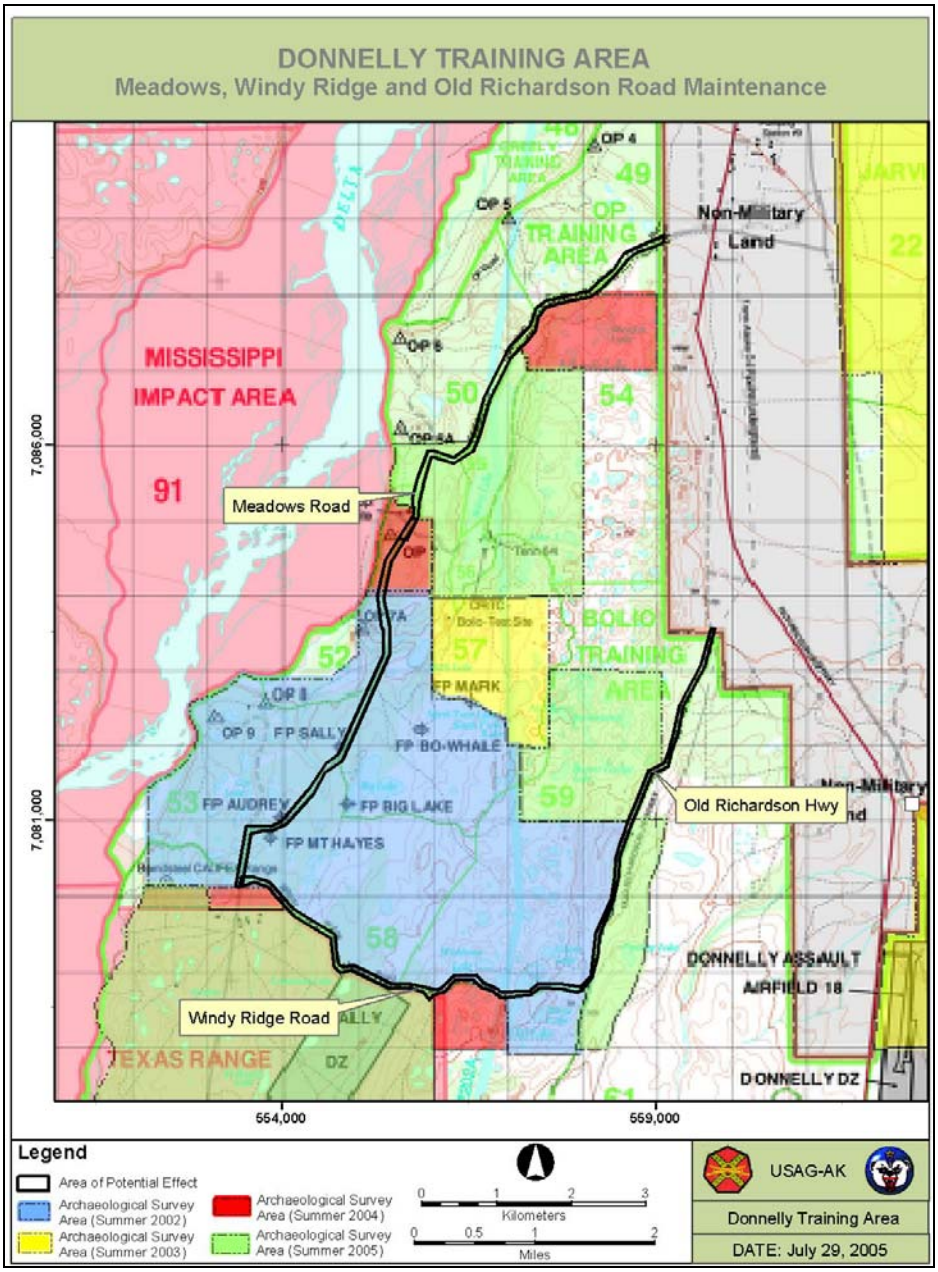

Figure 122. Map showing Meadows Road, Windy Ridge Road and the Old Richardson Highway

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Figure 123. Northern portion of Meadows Road area of potential effect

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Figure 124. Southern portion of Meadows Road area of potential effect

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Figure 125. Windy Ridge Road area of potential effect

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Figure 126. Old Richardson Highway area of potential effect